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IDENTIFIER:  
TITLE: COLORING MATTER SIMILAR TO MONONUCLEOTIDE FOR  
DNA @ (3754/24)RNA) AND DNA @ (3754/24)RNA)  
PROBE  
PUBN-DATE: May 6, 1994

INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To obtain the subject new coloring matter having general purpose, providing a DNA (RNA) probe capable of measuring a nucleic acid in high sensitivity, comprising a coloring matter, phosphate group and a saccharide wherein the saccharide is linked to the phosphate group by ester bond and to the coloring matter by glycoside bond.

CONSTITUTION: 2,3,3-Trimethyl indolenine of formula I is reacted with ethyl iodide and 1-iodo-5-dimethoxytrityl-2-deoxy-D-ribose of formula II (R is dimethoxytrityl, acetyl or benzyl; Ac is acetyl), separately respectively, to give a compound of formula III and a compound of formula IV and both the compounds are reacted in methanol. Then the reaction product is hydrolyzed to give a coloring matter of formula V similar to nucleotide, which is treated with 3' hydroxyl group of 2-cyanoethyl N,N,N',N'-tetraisopropylphosphadiamidite saccharide and phosphorylated to give the objective coloring matter such as objective DNA (RNA) probe containing a coloring matter, phosphate group and a saccharide.

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